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STATUTORY DECLARATION

I, Yuri SASAKI, of Taiyo Seimei Otsuka Building 3F, 2-25-1, Kitaotsuka, Toshimaku, Tokyo, 170-0004, Japan, do solemnly and sincerely declare as follows:

I am well acquainted with the English and Japanese languages.

The attached translation is true into the English language of the accompanying certified copy of the document filed in the name of Fuji Photo Film Co., Ltd., in the Japanese Patent Office on August 17, 1998, in respect to an application for Patent.

This 1st day of October 2003,

Yuri Sasaki

Yuri SASAKI

[TITLE OF THE DOCUMENT] Patent Application

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[FILING DATE] 17 August, 1998

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[INTERNATIONAL PATENT CLASSIFICATION] B41J 2/315

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[FEE]

[PREPAYMENT BOOK NUMBER]	011844
[PAID AMOUNT]	21000

[LIST OF FILED DOCUMENTS]

[TITLE]	Specification	1
[TITLE]	Drawings	1
[TITLE]	Abstract	1

[TITLE OF DOCUMENT] SPECIFICATION

[TITLE OF THE INVENTION] PRINTER AND RECORDING PAPER FOR THE SAME

[SCOPE FOR CLAIMS]

[CLAIM 1]

A printer for recording an image on a recording paper in which a recording paper discernment code for discerning said recording paper is recorded in a readable manner, said printer being characterized in that:

said printer comprises reading means for reading said recording paper discernment code, and

means for checking whether said recording paper discernment code and a designated code, which is previously stored, coincide with each other and for inhibiting or alarming of printing if they do not coincide.

[CLAIM 2]

A printer as claimed in claim 1, being characterized in that: said printer comprises an imaging device for photographing an object, and an subject image formed by said imaging device is printed.

[CLAIM 3]

A printer as claimed in claim 2, being characterized in that: plural synthesis images are stored, and a selected synthesis image and said subject image formed by said imaging device are synthesized and then printed.

[CLAIM 4]

A printer as claimed in at least one of claims 1, 2, and

3 being characterized in that: said recording paper discernment code is constituted of a dealer code for discerning a dealer.

[CLAIM 5]

A printer as claimed in at least one of claims 1, 2, and 3 being characterized in that: said recording paper discernment code is constituted of a marketing route discernment code for discerning a marketing route.

[CLAIM 6]

A recording paper being characterized in that a recording paper discernment code for discerning a recording paper is recorded in a readable manner.

[CLAIM 7]

A recording paper as claimed in claim 6, being characterized in that: said recording paper discernment code is constituted of a dealer code for discerning a dealer.

[CLAIM 8]

A recording paper as claimed in claim 6, being characterized in that: said recording paper discernment code is constituted of a marketing route discernment code for discerning a marketing route.

[CLAIM 9]

A printer as claimed in at least one of claims 6, 7, and 8 being characterized in that: said recording paper discernment code comprises a type discernment code for discerning a type of said recording paper and size thereof.

[DESCRIPTION OF THE INVENTION]

[0001]

[FIELD OF THE INVENTION]

The present invention relates a printer and a recording paper for the same in which printing can be executed without deterioration in quality of synthesized printing and so forth.

[0002]

[PRIOR ARTS]

In recent years, a printer such as PRINT CLUB and PRINT GOKKO (commodity names) is received popularity in an amusement market.

[0003]

[PROBLEMS TO BE SOLVED BY THE INVENTION]

In the abovementioned printer, if a predetermined recording paper is not used, the printer will break down caused by a difference in size or thickness of a recording paper, or predetermined quality can not be obtained. In a color thermal recording paper, such as a color thermal recording paper in a thermal recording method, in which cyan, magenta, and yellow thermosensitive coloring layers overlaid on a base member in sequence, since a coloring property is changed under the stored condition thereof, printing quality is affected. The deterioration in the printing quality caused by the affect of the stored condition will occur in a recording paper in a heat development transfer method and a thermal transfer recording paper in a thermal transfer method as well as the thermal recording paper. Since the stored condition is changed by change of the marketing route, there is a request for selectively using only a recording paper from the reliable marketing route.

[0004]

The present invention was carried out corresponding to the abovementioned request, and has an object to provide a printer and a recording paper for the same in which deterioration in printing quality and trouble in the printer are prevented.

[0005]

[MEANS FOR SOLVING THE PROBLEMS]

In order to solve the abovementioned problems, a printer described in claim 1 is provided with a code reader for reading a recording paper discernment code and means for checking whether the recording paper discernment code and a predetermined code, which is previously stored, coincide with each other and for inhibiting or alarming of printing if they do not coincide. Note that it is preferable that the printer is provided with an imaging device for photographing an object and prints an subject image formed by the imaging device. In addition, it is preferable that plural synthesis images are stored, and a selected synthesis image and the subject image formed by the imaging device are synthesized and then printed.

[0006]

Further, in a recording paper described in claim 6, a recording paper discernment code for discerning the recording paper is recorded in a readable manner. Note that the recording paper discernment code is preferably constituted of a marketing route discernment code for discerning a marketing route. In addition, the recording paper discernment code may be constituted of a dealer code for discerning a dealer. The

recording paper discernment code preferably includes a type discernment code for discerning type and size of the recording paper.

[0007]

[EMBODIMENTS OF THE INVENTION]

Fig. 2 is a perspective view showing a recording paper to which the present invention has been applied. A recording paper 10 is wound about a roll core 11 in a roll shape. In a back surface associated with each of printing regions 12, a recording paper discernment code 13 is previously printed. The recording paper discernment code 13 is recorded for the purpose of positioning of the respective printing regions 12.

[0008]

As shown in Fig. 3, the recording paper discernment code 13 is an 10-bit code (b0, b1, ..., b9) formed by ten (10) quadrilateral regions F1-F10, either black or white, arranged linearly. The first quadrilateral region F1 represents the bit b0, and used as a paper type code. The bit b0 discerns whether the recording paper is a normal sheet or a sticker sheet. Accordingly, the bit b0 is "0" when the first quadrilateral region F1 is a white frame display, and then the recording paper is checked as the normal sheet. Meanwhile, the bit b0 is "1" when the first quadrilateral region F1 is a black frame display, and then the recording paper is checked to be the sticker sheet.

[0009]

The second and third quadrilateral region respectively

represent the bits b1 and b2, and used as a size code. Thereby, the size of the recording paper is discerned. Specifically, "0,0" represents the continuous form of the A5 format; "0,1" represents the continuous form of the A6 format; "1,0" represents the cut sheet form of the A5 format; and "1,1" represents the cut sheet form of the A6 format.

[0010]

The forth, fifth, sixth, and seventh quadrilateral regions F4, F5, F6 and F7 respectively represent the bit 3, bit 4, bit 5, and bit 6, and used as a dealer code. Fifteen (15) dealers are discerned by using of the dealer codes from "0h" to "Eh". "Fh" is an almighty code, which is not recorded to the recording paper. The almighty code is used when it becomes possible to print all the recording papers having the dealer code in the printer side. Specifically, when checking for discerning the recording paper, if "Fh" is input, printing is allowed no matter what the dealer code in the recording paper side.

[0011]

The eighth, ninth and tenth quadrilateral regions F8, F9 and F10 respectively represent the bit 7, bit 8, and bit 9, and are used as a printing format code. A multi-frame printing, which includes 4-region, 8-region, and 16-region printings, and other different size is discerned by the discernment code.

[0012]

The recording paper 10 is constituted of a well-known color thermal recording material, and therein cyan, magenta,

and yellow thermosensitive coloring layers and a protective layer are overlaid on a base member sequentially. Since the cyan thermosensitive coloring layer is disposed in the deepest position, it has the lowest heat sensitivity, and develops the cyan color upon application of relatively great heat energy. The magenta thermosensitive coloring layer has the medium heat energy, and develops the magenta color upon application of heat. Since the yellow thermosensitive coloring layer which is disposed in a top surface, it has the highest heat sensitivity, and develops the yellow color by application of relatively low heat energy.

[0013]

In addition, there are intermediate layers disposed between the respective thermosensitive coloring layers for adjusting their heat sensitivity. Also, a back layer is disposed on a back surface of the base member. The order of the respective thermosensitive coloring layers can be changed. The heat sensitivity of the thermosensitive coloring layers dose not depend on the components of the thermosensitive coloring layers, and depends on the depth of the layers with reference to the surface of the recording paper, so that the heat sensitivity is the lower according to the deep extent of the thermosensitive coloring layer.

[0014]

The protective layer is a transparent resin layer produced mainly from PVA (polyvinyl alcohol), and protects the thermosensitive coloring layers from being scratched or damaged.

The yellow and magenta thermosensitive coloring layers have fixability based on electromagnetic rays so as to prevent the undeveloped coloring component from developing the color when the lower layer than the yellow and magenta thermosensitive coloring layers is colored and recorded. Specifically, the magenta thermosensitive coloring layer has the maximum absorption wavelength of approximately 365nm, and loses its coloring ability when ultraviolet rays of this wavelength range are applied thereto. The yellow thermosensitive coloring layer has the maximum absorption wavelength of approximately 420nm, and loses its coloring ability when violet visible light of this wavelength range is applied thereto.

[0015]

Fig. 1 is a block diagram showing an outline of the printer of the present invention. A printer 20 is schematically constituted of a host computer 21 and a printer unit 22. The host computer 21 consists of a well-known personal computer 24, and provided with a display 25 and an operation panel 26. Further, a camera 28 as both a money detector unit 27 and an imaging device is connected to the host computer 21. The money detector unit 27 counts inserted money and also pays out coins to be returned. The camera 28 photographs an upper body of the user. The host computer 21 controls sequential operations including the insertion of the money and the ejection of the print sheet. Upon insertion of the money, a menu image is indicated on the display 25, and then the operation panel 26 is operated according to the indication, so that an image to be printed is made by an

image synthesis circuit 24a by selecting an image to be synthesized such as a background image, a foreground image, and character images as well known and also by photographing.

[0016]

The printer unit 22 is constituted of a parallel control block 30, a system control block 31, a printing control block 32, a recording paper discernment code reader 33, a thermal head 34, a paper feeder 35, and an optical fixer 36. The number 40 shows a platen roller. This presses the recording paper 10 against a heating element array 34a of the thermal head 34. The paper feeder 35 consists of feeder roller pairs 41, a motor 42 for rotating the feeder roller pairs 41, and a driver 43 for driving the motor 42.

[0017]

The parallel control block 30 transfers image data and a printing command from the host computer 21 to the system control block 31, and also transfers various states signal of the printer unit 22 to the host computer 21.

[0018]

The system control block 31 has a frame memory 37 for storing the image data received from the host computer 21, and controls the overall operation of the printer unit 22. The print control block 32 controls the thermal head 34 at the time of execution of printing, effects the image-processing, and controls the conveyance of the recording paper.

[0019]

In the host computer 21, as shown in Fig.4, when powered,

the printer unit 22 is indicated to read the recording paper discernment code. In the printer unit 22, in response to this command to read the code, the discernment code reader 33 is instructed to read the code by sending of the command from the host computer 24 to the parallel control block 30, the system control block 31, and the print control block 32. The discernment code reader 33 optically reads the recording paper discernment code by use of a code sensor 33a, and encodes the same. This discernment code is transferred to the system control block 31, and is kept stored in the memory 38 before the powering off the printer.

[0020]

Subsequently, the host computer 21 effects a start-up operation, and sets the various elements in a ready mode, to stand by for awaiting customers. In the mode of awaiting customers, the printing sequence and the printed samples are indicated sequentially on the display 25. A user inserts the predetermined money into money detector unit 27, so that the host computer 21 is set in a pick-up mode. In the pick-up mode, a sequence of picking up images to be printed and a sequence of image synthesis are indicated on the display 25, and the operation panel 26 is operated according to the indications, so that the pick-up and the image synthesis are performed. After that, the synthesis image is displayed, and confirmed by the operation at the operation panel 26, so that the host computer 21 is set in a printing mode. In the printing mode, the printing command and the image to be printed are transferred to the

printer unit 22.

[0021]

When the host computer 21 is set in the printing mode, the system control block 31 receives the image data, reads the recording paper discernment code, checks to the discernment code and the designated code, and performs the printing according to the parallel control from the host computer 21.

[0022]

First, the designated code is sent from the host computer 21 via the parallel control block 30 to the system control block 31 for the purpose of a printing command and recording paper discernment. As shown in Fig.5, after the system control block 31 checks whether the designated code for discerning the recording paper is "Fh" or not, if the code is "Fh", the printing is executed. Thus the printer unit 22 consistently can be allowed to print in a manner irrespective of the type of the recording paper.

[0023]

Meanwhile, if the code is not "Fh", the recording paper discernment code stored in the memory 38 is read, and this discernment code and the aforementioned designated code are checked whether they coincide with each other. If the discernment code and the designated code coincide with each other, the printing command is sent to the print control block 32, and also transfers the image data required for being printed.

[0024]

In the transfer of the image data, the image data transferred from the host computer 21 is written to a frame memory 37 in the system control block 31 via the parallel control block 30.

[0025]

In the print control block 32, the image is processed based on the printing command from the system control block 31, and each heating element of the thermal head 34 is driven after one line of yellow image data has been transferred. Additionally, in the print control block 32, the paper feeder 25 conveys the recording paper 10 by one line in synchronism with the driving of the thermal head 34, and then each color is recorded by one line to the printing region 12 (see Fig.2) of the recording paper 10. Hereinafter, each line is recorded one after another in a similar manner. After recording of the yellow image, the magenta and cyan images are recorded, so that a full-color image is obtained by the three-color frame-sequential recording. In this three-color frame-sequential recording, a yellow fixing lamp 36a of the optical fixer 36 is turned on immediately after recording of the yellow image, and the yellow thermosensitive coloring layer is optically fixed. In the same way, a magenta fixing lamp 36b is turned on immediately after recording of the magenta image, to fix the magenta thermosensitive coloring layer. In this embodiment, the recording paper 10 is reciprocally fed by use of one thermal head 34; however, three thermal heads may be used so as to record the three images sequentially by one-pass.

[0026]

If the designated code and the discernment code do not coincide in the system control block 31, data showing that they do not coincide is transferred without executing the printing operation. In this case, the host computer 21 causes the display 25 to indicate a state that the printing can not be executed since the recording paper 10 is not a designated paper, and an alarm of an operator call for calling an operator is indicated, and also the host computer 21 generates an alarm sound. In the case where the money has been inserted for printing, the money is paid back through the money detector unit 27.

[0027]

As mentioned above, when the user intends to start printing after throwing the money, as shown in Fig. 6, when the power is turned on, after reading the recording paper discernment code, the discernment code and the designated code, which is stored beforehand, are checked whether they coincide with each other, instead of inhibition of printing. If the result of the judgment shows that there is no coincidence, an alarm, which shows that the recording paper is not designated but nonconformity, is displayed, and also the printing is inhibited. An alarm sound for showing the nonconformity in the recording paper is also generated upon displaying the alarm, for the purpose that the proper recording paper is set. In addition, if the result of the judgment shows that there is coincidence of the codes, the initial starting operation of the printer is executed, to set the mode of awaiting customers. In the mode of awaiting customer,

the pick-up of images, image synthesis, and printing are executed corresponding to the insertion of the money.

[0028]

Furthermore, as shown in Fig.7, it is allowable that the recording paper discernment code is read immediately after exchanging the recording paper, and after checking whether the discernment code and the designated code, which is previously stored, coincide with each other, the printing may be inhibited if there is no coincidence. In this case, if the designated code is an almighty code like "Fh", printing is executed without reading the recording paper discernment code. Note that a checking step for checking whether the designated code is the almighty code may be included in the operation in Fig.6 likewise.

[0029]

In the above embodiment, the recording paper discernment code read by the recording paper discernment code reader 33 is stored in the memory 38, and then read from the memory 38 to be checked with the designated code at the time of printing; however, instead of such way, the recording paper discernment code may be read from the recording paper 10 by the code reader 33 at each time of printing.

[0030]

In the above embodiment, the system control block 31 in the printer unit 22 checks whether the recording paper discernment code and the designated code coincide with each other; however, as an alternative, the recording paper

discernment code may be checked whether it coincides with the designated code in the host computer 21 side. In this case, the recording paper discernment code is transferred from the printer unit 22 to the host computer 21 in a data form. Accordingly, the checking of the codes in printer unit 22 is not operated, so that the load to the printer unit 22 can be reduced, and further the degree of freedom in applications on the side of the host computer 21 can be high.

[0031]

Furthermore, in the above embodiment, although the designated code for discerning the recording paper is stored in the host computer 21, as an alternative, it is possible to provide a non-volatile memory in the printer unit 22, for example in the system control block 31, and at the time of shipment from a factory, the designated code for discerning the recording paper, which can be used in the printer unit 22, may be written into the non-volatile memory. In this case, as mentioned above, the checking whether the designated code written into the non-volatile memory and the discernment code read from the recording paper coincide with each other is carried out in the printer unit 22 or the host computer 21. Not only one recording paper discernment code but plural discernment codes may be stored in the non-volatile memory. In such case, after reading these plural discernment codes, if the discernment code read from the recording paper and any one of these discernment codes coincide, the printing is allowed; otherwise, the printing is not allowed, and then the execution

of printing is prevented. Note that the plural designated codes also may be stored when the designated code is stored in the host computer 21.

[0032]

In the above embodiment, although the printer having the one host computer 21 and the one printer unit 22 is explained, as an alternative, it is possible to use a printer 53 corresponding to a multi-paper type in which two printer units 51 and 52 are provided in one host computer 53 as shown in Fig.8. In this case, the one printer unit 51 prints on the normal printing paper, and the other printer unit 52 prints on a sticker sheet. Printing is executed only when the recording paper acceptable for the respective printer units 51 and 52 is set.

[0033]

Furthermore, instead of using the one host computer 21, three host computers 58, 59, and 60 may be used in connection respectively with thermal printer units 55, 56, and 57 as shown in Fig.9, so as to constitute of a printer 61 in a multi-paper manner. In this case, as mentioned above, in the printer units and the host computers, printing is executed to only the recording paper corresponding to each of them.

[0034]

In the above embodiment, the recording paper 10 has a long rolled shape, and the recording paper discernment code 13 is provided in the back surface on the opposite side of the thermosensitive coloring layer of the recording paper 10; however, the recording paper discernment code may be provided

in outside of the printing region in the surface side of the recording paper. In addition, although the recording paper discernment code 13 is constituted of the quadrilateral regions F1-F10 arranged linearly, instead of the quadrilateral regions, it is possible to use a bar code, a CALRA code, and other codes which can be read in a mechanical manner, for the purpose of constituting the recording paper discernment code 13.

[0035]

In addition, instead of detecting the code in an optical manner, it is also possible to provide the recording paper discernment code having a conducting pattern, and a brush for contacting the conducting pattern may be used, to detect the recording paper discernment code. In addition, magnetic recording layer may be overlaid so as to record the recording paper discernment code thereon magnetically. Furthermore, holes or cutouts can be formed instead of the quadrilateral region, and the recording paper discernment code may be constituted by the presence of the holes and the cutouts or their permutation.

[0036]

In the above embodiment, the recording paper discernment code 13 is constituted in combination with the paper type code, the size code, and the printing format code, except for the dealer code; however, instead of these codes, the recording paper discernment code can be constituted of only the dealer code. Furthermore, instead of the dealer code, a marketing route discernment code for discerning a marketing route may be used

as shown in Fig.10 for the purpose of constituting a recording paper discernment code 70. Also, the recording paper discernment code can be constituted of merely the marketing route discernment code.

[0037]

In the above embodiment, when the dealer code and the designated code coincide, the printing is allowed; however, except for this case, the designated selectively adding other paper type code, the size code, and the printing format code, so that printing can be inhibited when the designated code does not coincide with other codes, inclusive of the dealer code.

[0038]

In the above embodiment, although the present invention was applied to the color thermal recording paper, the present invention may be applied to a recording paper in a heat development transfer method and a thermal transfer recording paper in a thermal transfer method instead of the color thermal recording paper. Also, except for these recording papers, the present invention can be applied to any type of recording paper of which printing quality may be lowered caused by a change of the stored condition in the marketing route. The present invention may be applied to a recording paper in an ink jet recording method or in a silver-salt photograph recording method, for example. Additionally, the present invention may be applied to an instant photograph recording paper as well as the normal silver-salt photograph recording paper.

[0039]

In the above embodiment, although the recording paper discernment code 13 is provided in the recording paper 10, except for this, the recording paper discernment code may be provided in a paper cassette for containing recording papers and a recording paper package. In this case, the recording paper discernment code is read from these packages.

[0040]

As shown in Fig.2, although the recording paper discernment code 13 is recorded by the predetermined pitch corresponding to each of printing regions 12, it may be recorded on only an end part of the recording paper. In addition, the recording paper discernment code 13 may be recorded by the predetermined interval without corresponding to each of printing regions 12.

[0041]

In the above embodiment, if the recording paper discernment code 13 and the designated code dose not correspond, although printing is inhibited and also the alarm is generated, either the inhibition of printing or the generation of the alarm may be executed.

[0042]

[EFFECT OF THE INVENTION]

According to the present invention, a recording paper discernment code is read by a code reader; and then the recording paper discernment code and a designated code, which is previously stored, are checked whether they coincide with each other, and since the printing is inhibited if they do

not coincide, it becomes impossible to print in an undesignated recording paper. Accordingly, since printing in the undesignated recording paper is not executed, the recording paper out of standard is not used, so that it is possible to prevent generation of a trouble and deterioration in printing quality. In a similar way, the printing in the recording paper out of regulation can be prevented by alarming when the recording paper discernment code and the designated code do not coincide.

[0043]

Since the recording paper discernment code for discerning the recording paper is recorded in a readable manner, it is possible to eliminate printing in the recording paper out of standard in a simple constitution, and to prevent a trouble and deterioration in printing quality. Especially, the recording paper discernment code is constituted of the marketing route discernment code for discerning the marketing route, so that it becomes impossible to print in the recording paper from undesignated marketing route. Accordingly, it is possible to print only in the recording paper from the reliable marketing route, and also, it is possible to prevent mechanical trouble and the deterioration in the printing quality caused by the recording paper stored in unsuitable condition. In a similar manner, the recording paper discernment code is constituted of the dealer code for discerning the dealer, so

that it is possible to prevent the mechanical trouble and the deterioration in the printing quality as above.

[BRIEF DESCRIPTION OF THE DRAWINGS]

[Figure 1]

is a block diagram showing an outline of a printer to which the present invention is applied.

[Figure 2]

is a perspective view showing a recording paper of the present invention.

[Figure 3]

is an explanatory view showing an example of a recording paper discernment code used in the present invention.

[Figure 4]

is a flow chart showing operation procedures when a power is turned on.

[Figure 5]

is a flow chart showing operation procedures when printing is commanded.

[Figure 6]

is a flow chart showing operation procedures when a power is turned on in another embodiment.

[Figure 7]

is a flow chart showing operation procedures when a recording paper is exchanged in another embodiment.

[Figure 8]

is a block diagram in another embodiment in which two printer units are provided in one host computer.

[Figure 9]

is a block diagram in another embodiment in which plural sets of a host computer and a printer unit are provided in one host computer.

[Figure 10]

is an explanatory view showing an example of the recording paper discernment code having a marketing route discernment code.

[Explanation of Indicia]

10 …	recording paper
12 …	printing region
13, 70 …	recording paper discernment code
20, 53, 61 …	printer
21, 50, 58-60 …	host computer
22, 51, 52, 55-57 …	printer unit

FIG. 1
【図1】

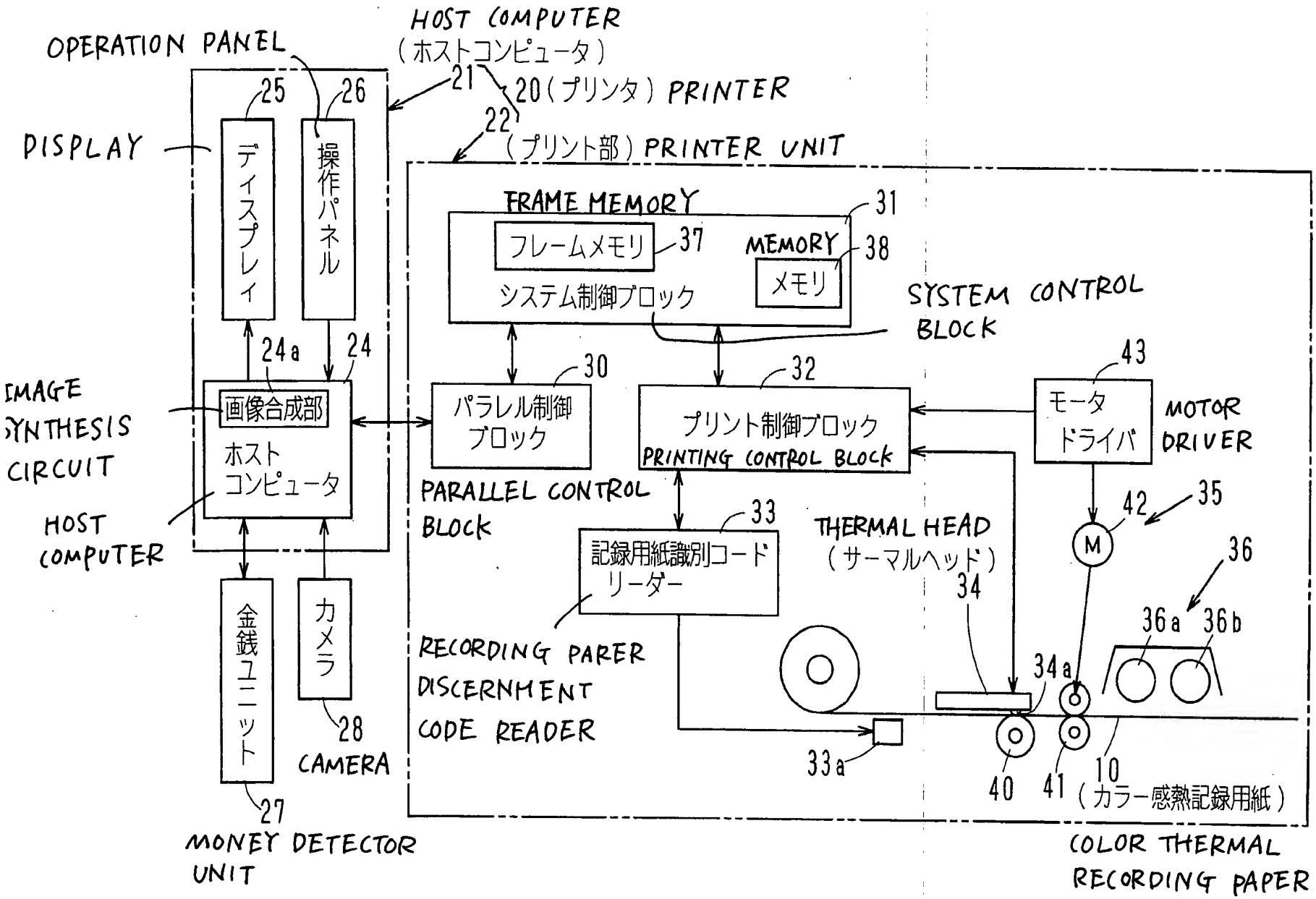

OPERATION PANEL
HOST COMPUTER
(ホストコンピュータ)
21
20(プリンタ) PRINTER
22
(プリント部) PRINTER UNIT
25
26
DISPLAY
ディスプレイ
操作パネル
FRAME MEMORY
31
フレームメモリ
37
MEMORY
38
メモリ
システム制御ブロック
SYSTEM CONTROL BLOCK
24a
24
IMAGE SYNTHESIS CIRCUIT
画像合成部
ホスト コンピュータ
HOST COMPUTER
30
パラレル制御 ブロック
PARALLEL CONTROL BLOCK
32
プリント制御ブロック
PRINTING CONTROL BLOCK
43
モータ ドライバ
MOTOR DRIVER
33
記録用紙識別コード リーダー
RECORDING PARER DISCERNMENT CODE READER
THERMAL HEAD
(サーマルヘッド)
42
35
M
36
36a
36b
34
34a
33a
40
41
10
(カラー感熱記録用紙)
金銭ユニット
27
MONEY DETECTOR UNIT
カメラ
28
CAMERA
COLOR THERMAL RECORDING PAPER

FIG. 2
【図2】

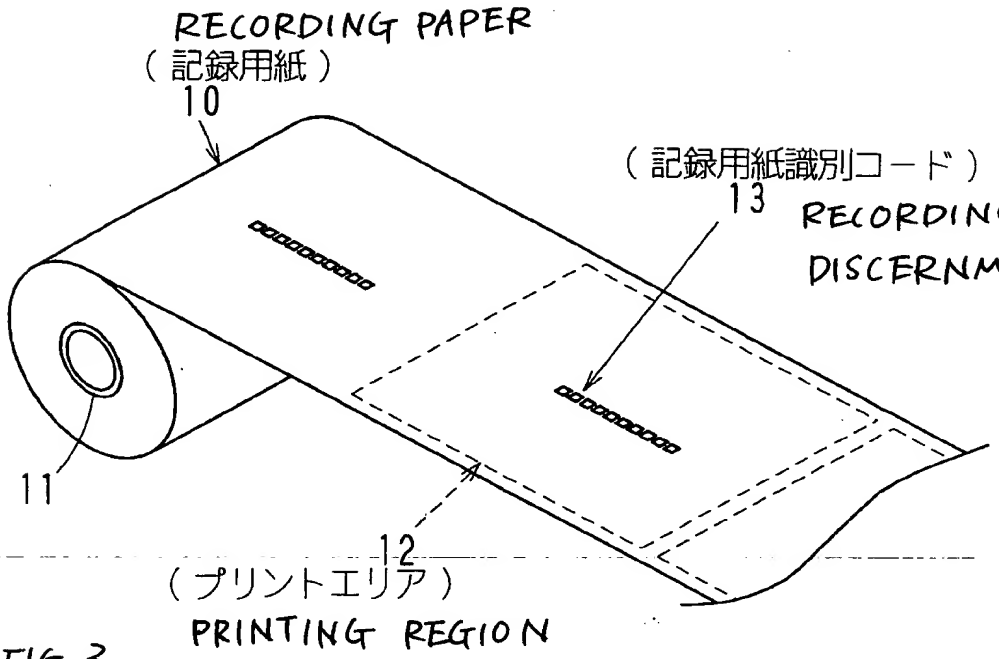


FIG. 3
【図3】

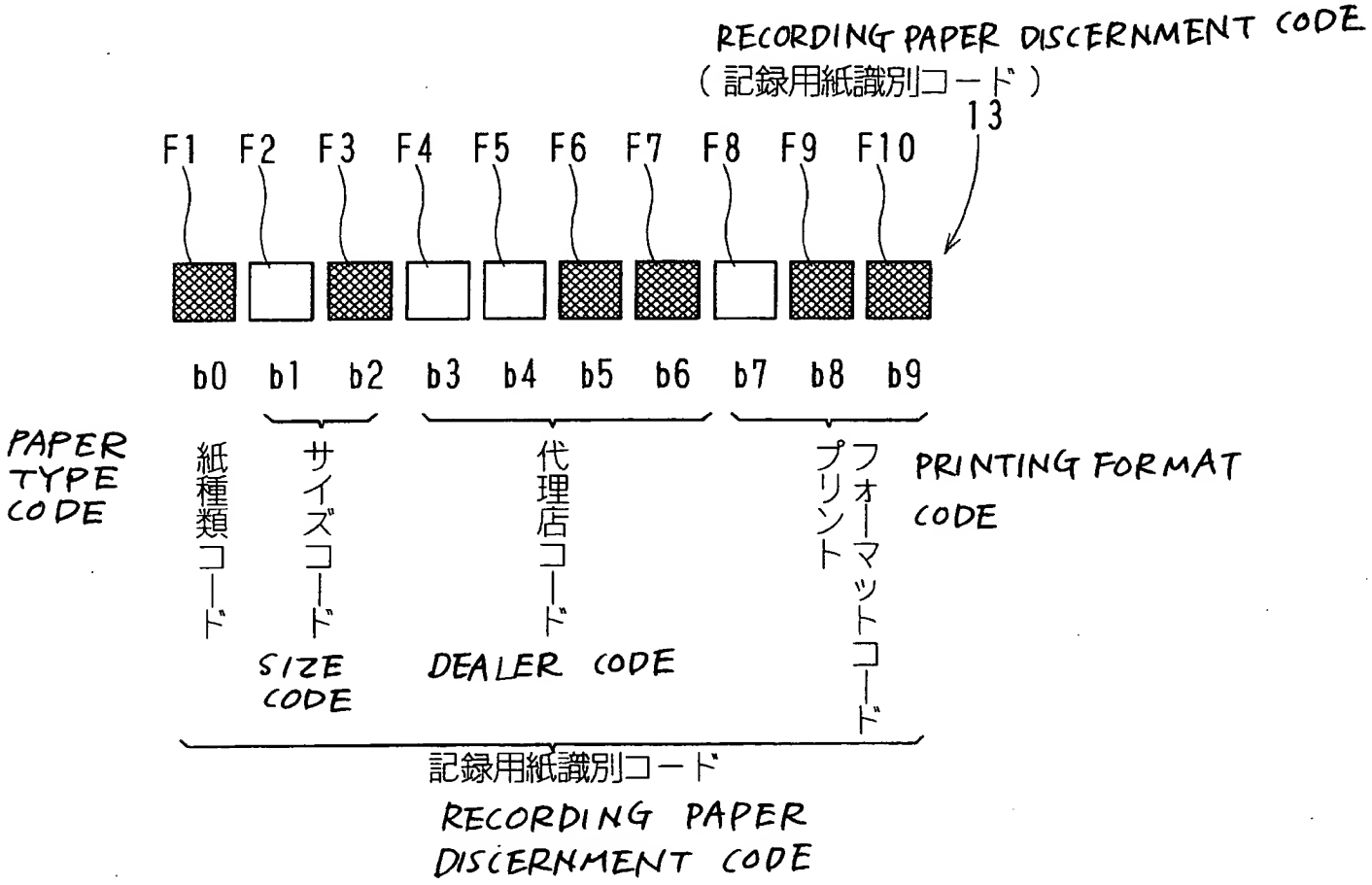


FIG. 4
【図4】

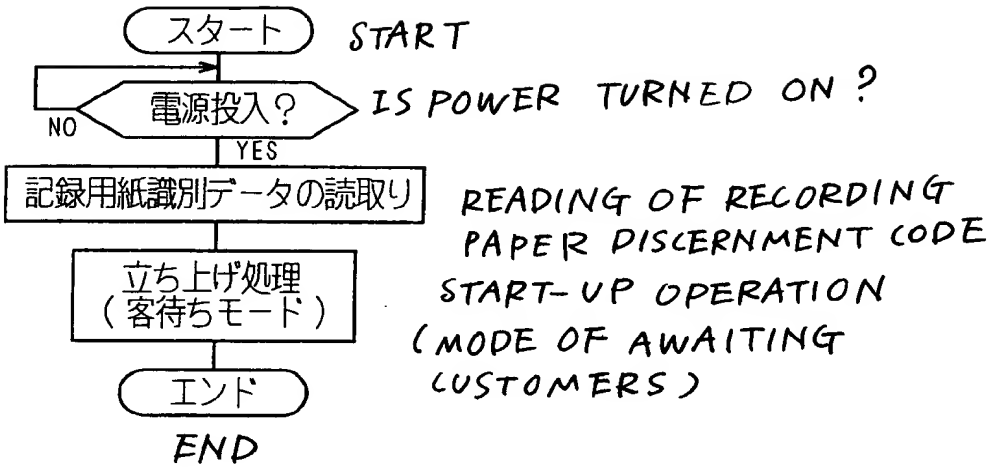


FIG. 5
【図5】

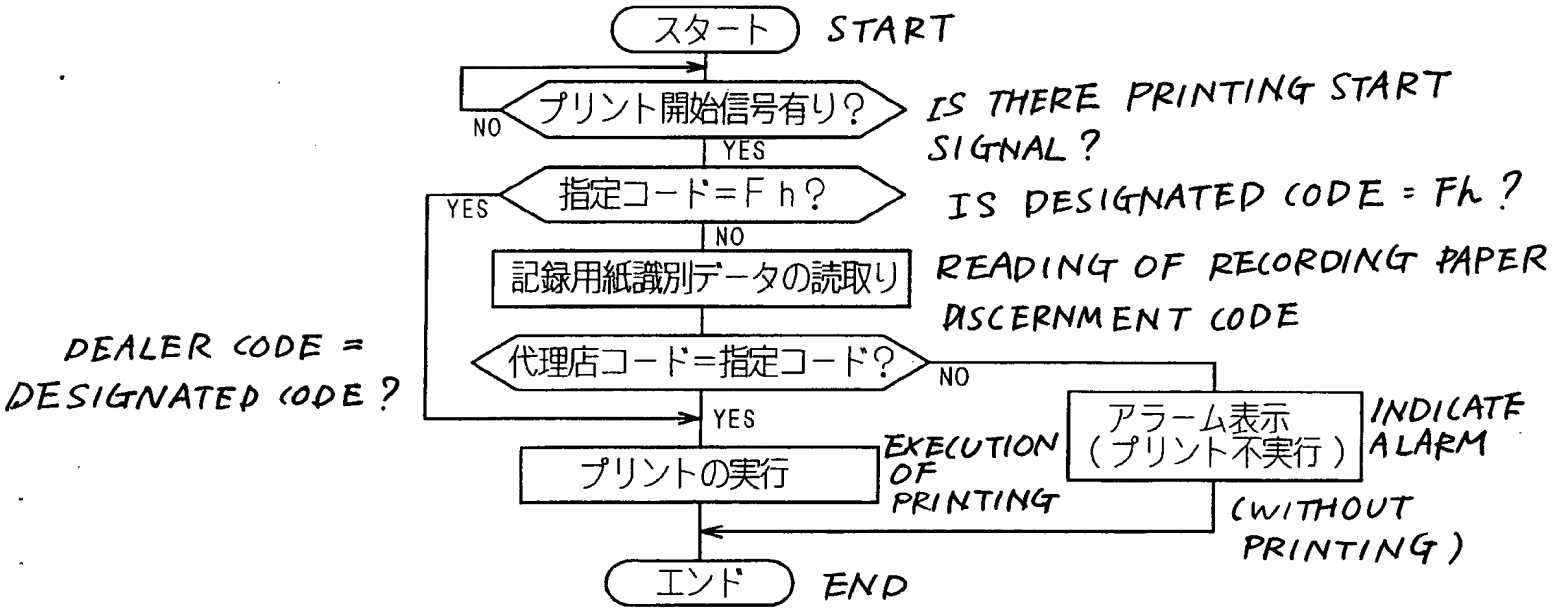


FIG. 6
【図6】

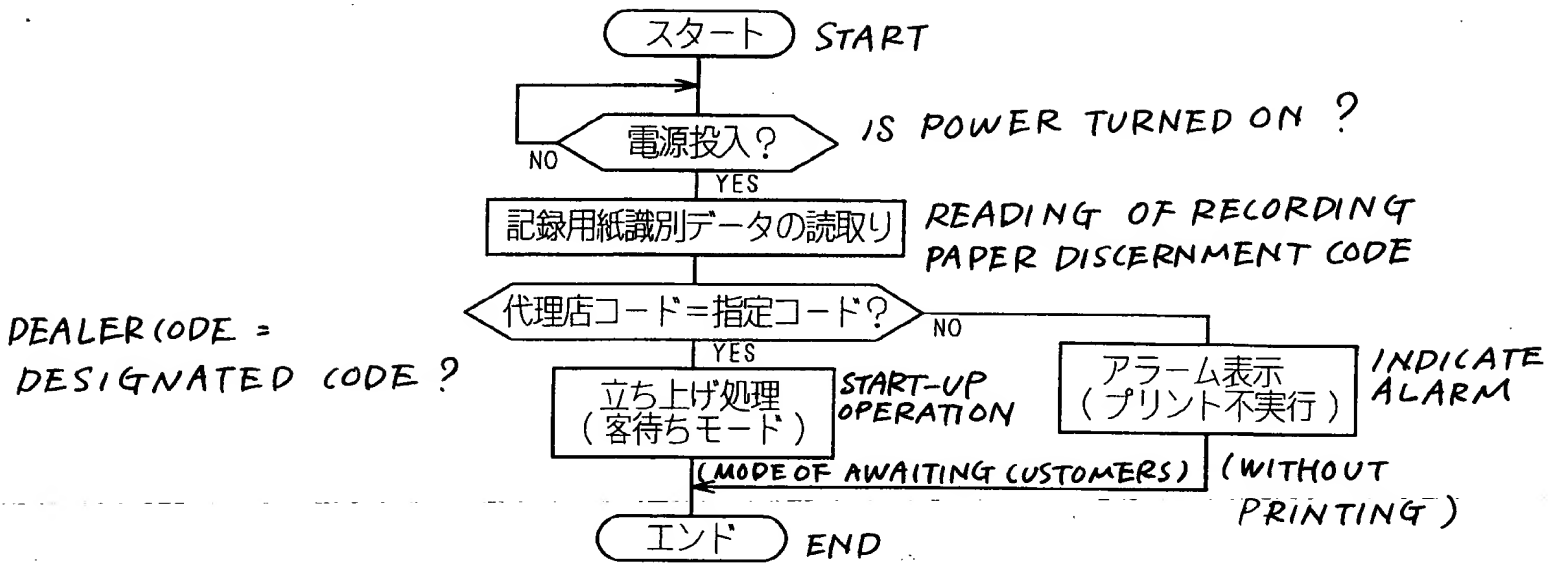


FIG. 7
【図7】

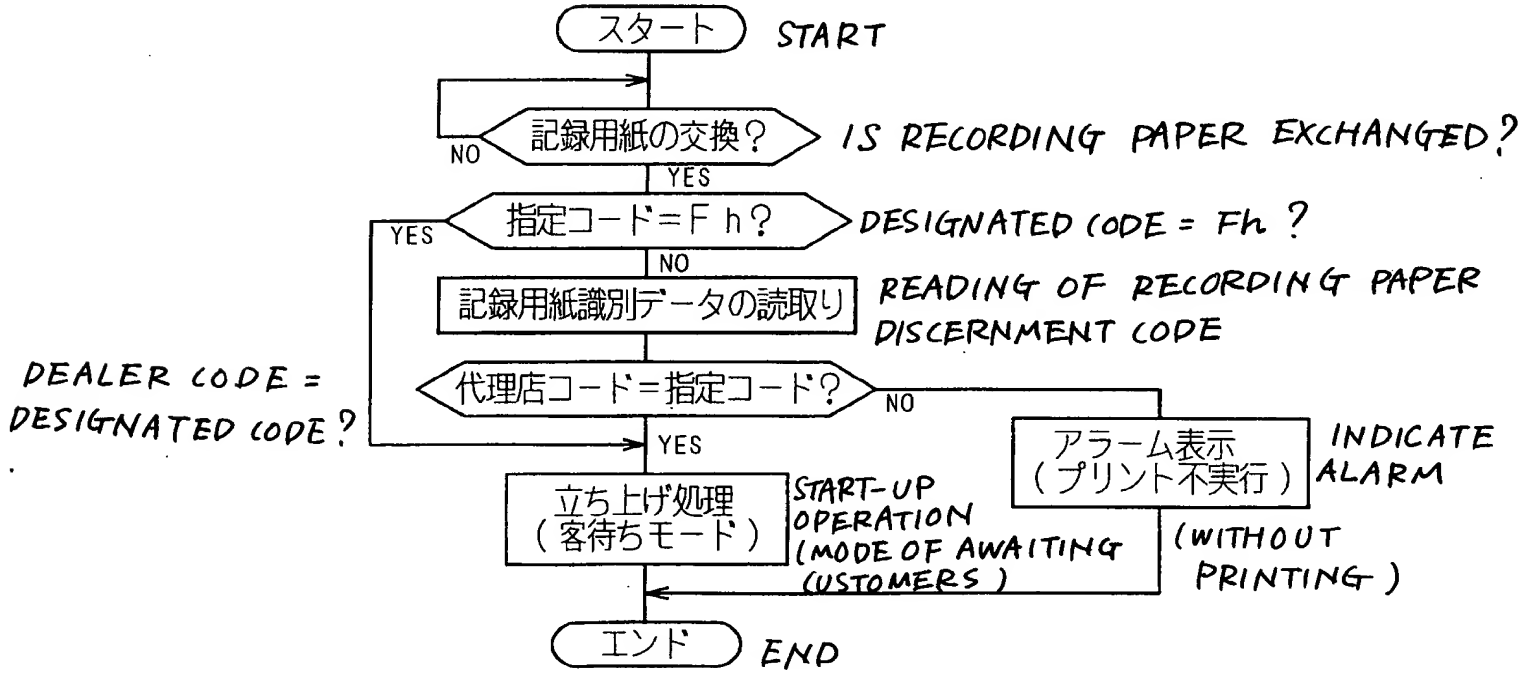


FIG. 8
【図8】

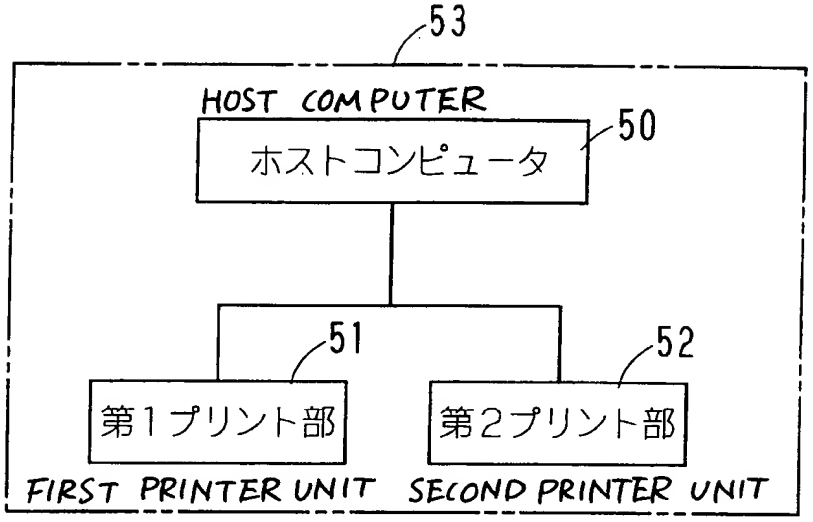


FIG. 9
【図9】

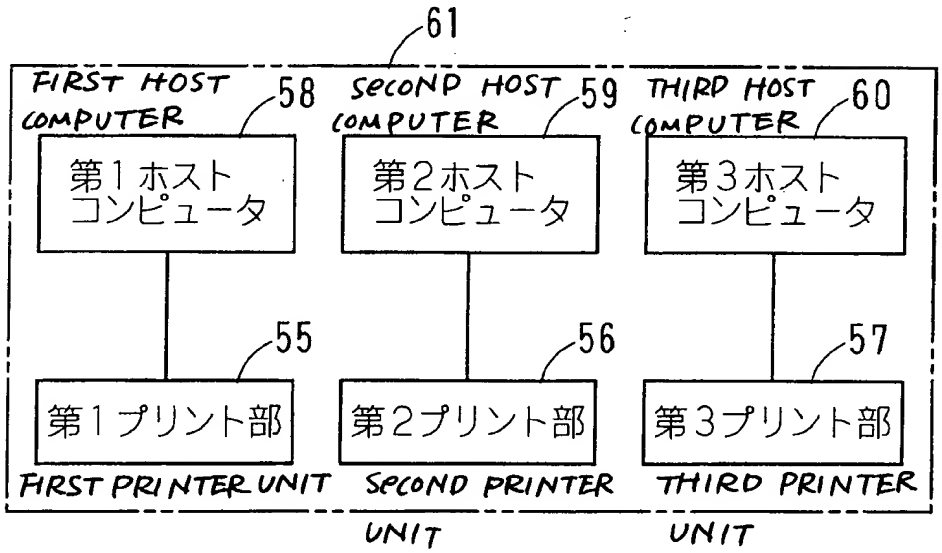
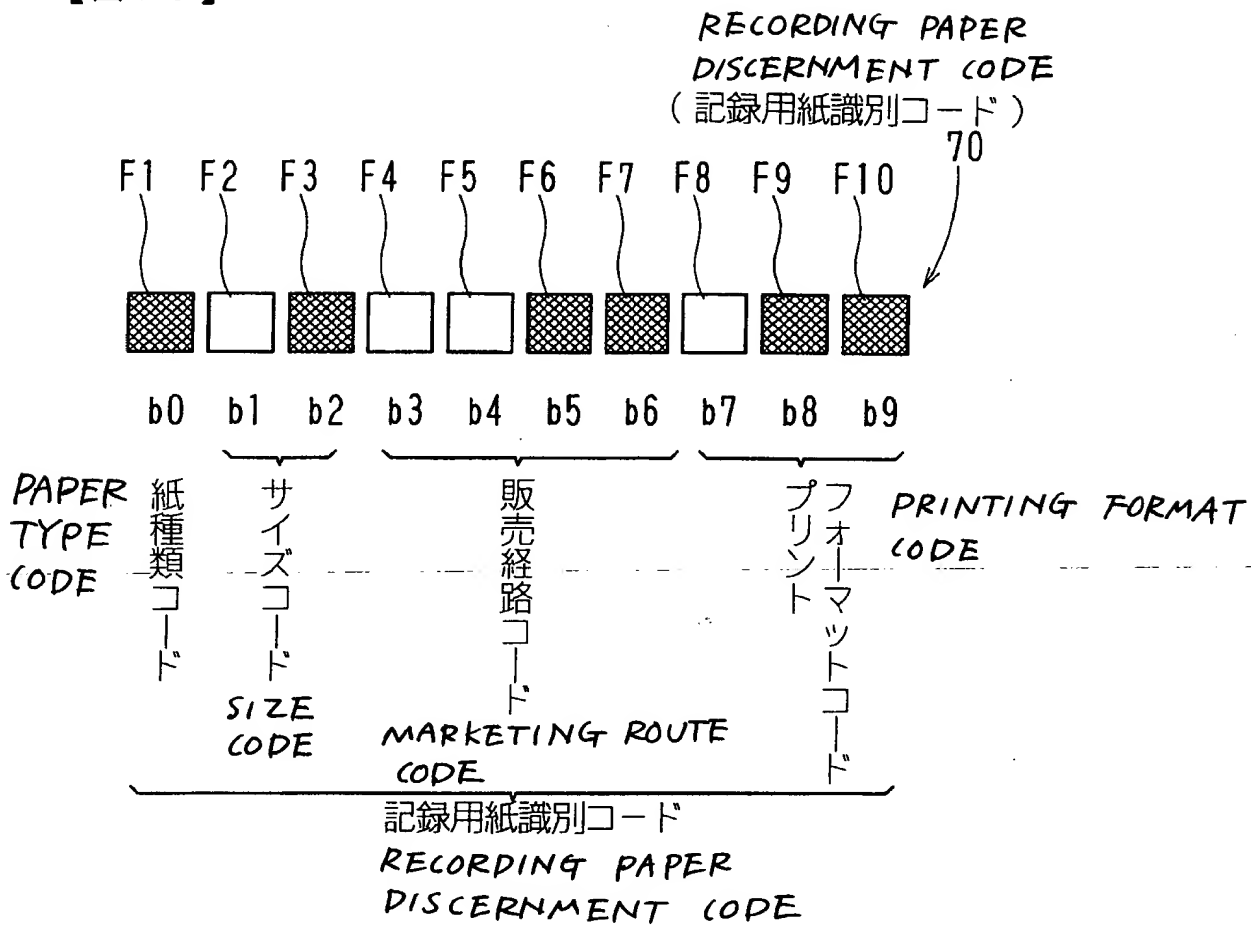


FIG. 10
【図10】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PRINTING FORMAT CODE
記録用紙識別コード
RECORDING PAPER DISCERNMENT CODE

[TITLE OF DOCUMENT] Abstract

[ABSTRACT]

[OBJECT]

Preventing deterioration in printing quality caused by a stored condition of a recording paper in a marketing route.

[RESOLUTION]

A recording paper discernment code having a dealer code is recorded in a recording paper. In a printer, a designated code for discerning a recording paper corresponding to a standard is previously stored. Prior to printing, the recording paper discernment code recorded in the recording paper is read. The recording paper discernment code and the designated code, which is previously stored, are checked, and then if they coincide with each other, the printing is executed. If the codes do not coincide, printing is not executed, but an alarm for showing that the recording paper does not conform is generated instead. Since the printing is not allowed onto other recording papers except for the recording paper previously stored, it is possible to prevent a trouble and deterioration in printing quality without printing on a recording paper out of standard and a recording paper stored in bad condition.

[ELECTED FIGURE] Figure 5